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ABSTRACT

Two questionnaire surveys of 89 Kansas public elementary and secondary schools examined, first, the relationship between school expectancy climate--teachers' expectations that their efforts would lead to positive student results--and school effectiveness, and, second, the change in that relationship through the school year. School effectiveness was measured by teacher perceptions of their schools' adaptability and attainment of goals, their feelings of job satisfaction, and student attitudes toward school. The two surveys covered 1,697 teachers and 880 students in the fall and 1,442 of those teachers and all the same students the following spring. Data were gathered on school size and educational level, student attitudes, and teacher experience, education, sex, job feelings, expectations of students, and perceptions of adaptability and goal attainment. Statistical analysis using correlation coefficients indicates that all four measures of school effectiveness are correlated positively and significantly with school expectancy climate. The relationships are especially strong between expectancy and perceived adaptability and goal attainment. All the correlations were higher in the spring than in the fall. (RW)

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EXPECTANCY CLIMATE AND SCHOOL EFFECTIVENESS

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EXPECTANCY CLIMATE AND SCHOOL EFFECTIVENESS*

Expectancy as a determinant of educational outcomes was popularized with the publication of Pygmalion in the Classroom by Rosenthal and Jacobson (1968). Their work was criticized severely because of failures to identify teacher behaviors that produce achievement, to use correct methodologies, appropriate statistical analyses and interpretation techniques, because of the employment of contrived and weak manipulations of teacher expectancy, and because other investigators lack the ability to replicate Rosenthal and Jacobson's findings (Dusek, 1975; Braun, 1976; Cooper, 1979).

While early studies of teacher expectancy produced considerable controversy, they also spurred high levels of research activity. Cooper (1979:392) concluded that the existence of expectancy effects has a well-established foundation. A general problem in the studies is an atheoretical orientation to the expectancy concept itself. An early explanation of how expectancy effects operate in schools was provided by Foley (1965). Many teachers hold low expectations of minority group, disadvantaged or learning disabled youngsters that become self-fulfilling prophecies. The students sense the negative judgments, are not motivated to excel or exert themselves and, thus, the teachers' expectations are confirmed. The basic idea continues to have intuitive appeal, but it lacks explanations of how the prophecies are generated and maintained. The use of current cognitive approaches could help correct this deficiency in the literature.

Another neglected area with important implications for educators is the organizational effectiveness of schools. When this topic is dis-

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cussed, terms such as accountability, quality, student achievement, innovation, and morale are generally employed. Many of the arguments or discussions conclude with the generalization that effectiveness cannot be defined and measured. But organizational effectiveness represents such a central theme in the operation of schools that the difficult questions cannot be avoided. Education is not devoid of effectiveness indicators. Educators and members of the public acknowledge that different schools achieve different degrees of success, even with similar student populations.

Integrating the contextual factor of teacher expectancy in schools with theoretically based ideas of organizational effectiveness and testing the posited relationships could produce significant insights for practitioners and scholars. For example, expectancy climate defines norms in schools that can guide individuals to behave at certain effort levels. The formulation and implementation of individualized educational programs (IEPs), for instance, require high levels of effort by teachers. Therefore, the effectiveness levels of existing and proposed programs for learning disabled and, indeed, all students depend on the expectations of teachers toward their work and students. Based on the need and importance to understand the relationships between expectancy climate as an environmental variable and school effectiveness variables, two purposes guided the investigation: (a) to determine the strength of relationships between expectancy climate and four indicators of school effectiveness; and (b) to assess the stability of the relationships during a school year.

Conceptual Perspective for School Effectiveness

To ask a global question about whether a school is effective or ineffective is a non-productive exercise. Effectiveness is not one thing.

A school can be both effective and ineffective depending upon the criteria used, which may be independent of one another. Therefore, a basic assumption guiding the development of a definition of school organizational effectiveness was that the concept is multidimensional. Four concepts were used as indicators of organizational effectiveness: perceived adaptibility, perceived goal achievement, teacher job satisfaction, and student attitudes toward school.

The selection of these four criteria was based on the four critical functions--adaption, goal attainment, integration, and latency--that Parsons (1960) postulated were necessary for the survival of a social system. Adaptation is concerned with the system's need to control its environment. Schools accommodate themselves to the basic demands of their environment by attempting to transform the external situation and by changing their internal programs to meet new conditions such as demands for programs to assist children with special needs. Goal achievement is the attainment of system goals. The system defines its objectives and mobilizes its resources to achieve these desired ends. Typical indicators of goal gratification for educational organizations are academic achievement, productivity, efficiency, and the quality of students and services. Integration refers to a social solidarity within the system. It is the process of organizing, coordinating, and unifying social relations into a single structure. Among the primary social concerns of the school are employee job satisfaction and morale. Finally, latency is the maintenance of the value system. Effective schools require high commitment and appropriate behavior by educators and students to reinforce the organization's norms and values. An indicator of latency is the attitudes of students toward school. Thus, four criterion variables constituted a theoretically based composite of performance indicators.

Conceptual Perspectives for Expectancy Climate in Schools

The concept of climate refers to the internal characteristics of a group or organization which define the culture for the members. School climate encompasses a composite of variables that are broadly conceived of as norms and expectations held for various members (Brookover and Erickson, 1975). These factors are perceived by the members of the group and communicated to each other to shape behavior.

As noted at the beginning of this paper, a major problem with the studies of expectancy effects has been an atheoretical orientation to expectancy concept. Expectancy has long been incorporated into cognitive approaches to motivation which can explain the emergence of both teacher and student behavior. Vroom (1964) made the first explicit formulation of expectancy theory applied to organizational behavior. Although variations of the model exist, most conceptualizations employ the concepts of expectancy valence and instrumentality.

Expectancy (E) refers to the subjective probability between behavior and performance levels. Expectancy is high, for instance, if an educator believes that high effort will yield outcomes such as high student achievement and positive attitudes. Valence (V) refers to the attractiveness or desirability of a reward for an individual. Those rewards that have high valences are goals which the individual actively seeks or strongly desires. For example, academic achievement and positive attitudes of students hold high valences for most teachers. Instrumentality (I) refers to the perceived probability that a reward with a valence will be forthcoming after a given level of performance. If teachers think that high student achievement and positive attitudes in their classrooms are likely to result in being rewarded, then instrumentality is high. The basic postulate is that the force of motivation (FM) is the product of expectancy, valence, and instrumentality.

In cases of the self-fulfilling prophecy, teachers perceive the probabilities of either expectancy or instrumentality as varying with different groups of students. For example, teachers with high forces of motivation may initiate new techniques, organizational configurations, and curricula based on the expectation that high effort levels and new technologies will improve student performance and attitudes. If the outcomes are positive and the teachers are rewarded, then high effort levels should continue. However, if either the outcomes or rewards vary by student groups, then the effort levels will decline or become more focused. For instance, students with learning disabilities may not perform as well as expected, even when high teacher effort is made. The result is a loss of motivational force by the teachers toward this group of children. Depending upon the characteristics of the student groups, teachers also may be rewarded differentially. Parents of higher social status may provide greater recognition of the teachers' efforts and, thus, increase the instrumentality for the teachers who work harder with their children than those from a lower social status. In sum, expectancy motivation theory explains how the self-fulfilling prophecy functions by resource denial (Wilkins, 1976:180) and by resource supplements.

Individual expectancy motivation of teachers aggregated to the school level defines one force to behave for the individuals in the social situation. Specifically, teacher expectations about intrinsic rewards and student learning and behavior are postulated to be important factors in determining how teachers and students behave and the effectiveness levels of schools.

Posited Relationships Between Expectancy Climate and Four Indicators of School Effectiveness

The literature contains evidence that expectancy climate in schools is systematically related to the indicators of organizational effectiveness. Extrapolating the existing knowledge to the present study allows for the development of theoretical rationales and hypotheses for the variables.

Adaptability

Of all the criteria for organizational effectiveness, Steers (1975) found that adaptability and the closely related concepts of flexibility and innovation are used most frequently by researchers as effectiveness measures. Generally, adaptability ties the capacity of organizations to modify their operating procedures with internal and external forces that induce change. In schools, adaptiveness can be defined as the abilities of professional educators to perceive forces of changes and to initiate new policies and practices to meet emergent demands.

Innovation represents a major problem for professional bureaucracies such as schools because major innovation requires efforts to cooperate and communicate across disciplines within the operating core and across parts of the schools (Mintzberg, 1979:374-376). Therefore, expectancy climate should be positively related to adaptability. The reason is that teachers who believe that they can effect changes in schools and receive rewards for the innovations are likely to attempt the modifications. Conversely, effort will not be expended without the expectation of some rewards. Similarly, Pierce and Delbecq (1977) proposed that intrinsic motivation relates positively to organizational innovation or adaptability. They believe that employees will choose to be innovative in situations where

job involvement and intrinsic work factors are high. Further support is provided by the findings of Angle and Perry (1981:9) that employee commitment was positively related to organizational adaptability. This rationale provides conceptual and empirical evidence to support the following hypothesis.

Hypothesis One. Expectancy climate will be significantly correlated to perceived adaptability of schools.

Perceived Goal Achievement

When discussing school goal achievements, many parents, government policy makers, and scholars define the concept too narrowly. Usually, they mean student scores on standardized tests measuring cognitive skills. However, educators produce a number of products and services that represent goal attainments. For example, student learning, instruction, new curricula, athletic achievements, art and music programs, and teacher-parent meetings are produced in schools. Hence, the effectiveness levels of schools vary not only in the quantity and quality of their products and services, but also in the efficiency of production. The findings of Mott (1972) indicate that employee perceptions accurately reflect the relative levels of goal achievement in their organizations.

Using concepts closely related to expectancy climate, Mott (1972) found that effectiveness was greater when the climate was open. Similarly, research findings in educational organizations uphold Mott's conclusions (Miskel, Fevurly, and Stewart, 1979). Organizational climates characterized by participation and high motivation were conducive to teachers perceiving the school as being effective. After reviewing literature, Hellriegel and Slocum (1975:263) concluded that numerous studies have found a significant positive relationship between organizational climate and a

number of indicators of effectiveness. Based on this evidence, the following hypothesis was drawn.

Hypothesis Two. Expectancy climate will be significantly correlated to perceived goal achievement of schools.

Job Satisfaction

Defined as a present and past oriented affective state that results when the educator evaluates his or her work role, job satisfaction represents a key indicator of integration or social solidarity. A logical connection exists between expectancy motivation theory and job satisfaction. The anticipation of producing outcomes such as achievement or personal rewards on the job positively affects employee satisfaction (Vroom, 1964). Moreover, a number of studies have found a strong positive relationship between individual expectancy motivation and job satisfaction (Mitchell, 1974, 1979). In the educational setting teachers with a high force of motivation also have indicated a high level of job satisfaction (Miskel, DeFrain, and Wilcox, 1980). In addition, job satisfaction often varies according to the individual's perception of organizational climate (Hellriegel and Slocum, 1974:263). As a climate concept, similar relationships should hold between expectancy motivation and job satisfaction. Therefore, the literature supports the statement of the following hypothesis.

Hypothesis Three. Expectancy climate will be significantly correlated to teacher job satisfaction.

Student Attitudes

How the students describe the learning environments represents the effectiveness of schools in meeting the latency needs of social systems. Grandjean and Vaughn (1981:288) demonstrated that several factors explained individual variation in attitudes of students toward schools.

Positive views tend to be held by students who, for example, take classes in the non-college track, are socially active, receive high grades, or feel that students have appropriate influence on school policies. The investigators speculated that mechanisms explaining the differences could be social-psychological, structural, or both.

Student attitudes toward school also should be closely tied to the expectancy climate created by the teachers. Brookover and his colleagues (1977) demonstrated that teacher expectations, as a climate variable, clearly affect academic achievement. An explanation for the relationship is that the expectations of teachers about student success play important roles in how teachers reinforce student behavior. For example, studies of learned helplessness suggest that many students learn over a series of trials that they cannot control the outcomes of educational events and the processes that dispense rewards. Therefore, students start to believe that success is unlikely (Thomas, 1979). Repeated exposure to failure causes students to be deficient in activities they could once accomplish. These students continually fail, receive few positive rewards, and their attitudes become increasingly negative. Teachers often react to this failure by expecting more failure. That is, their expectancy levels or the effort-performance probabilities approach zero. The students have little chance to change, especially when teachers reward the higher achieving students with more attention (Rosenthal, 1974). In turn, the teachers receive from the higher achieving students ~~more rewards~~ than from the lower achieving students. Both teachers and students have modified their instrumentality levels and thus their forces of motivation. A result should be an impact of the expectancy climate upon the attitudes of students toward school. Therefore, the literature supports the following hypothesis.

Hypothesis Four. Expectancy climate will be significantly correlated to student attitudes toward the schools.

METHODOLOGY

Sampling and Data Collection Procedures

The population for the study was 89 public elementary and secondary schools in Kansas. Although procedures were not used that ensured a random sample, care was taken to select urban, suburban, and rural schools from diverse geographic areas of Kansas. Schools from the largest districts in the state were included as well as schools from districts with less than 500 students. Of the 92 schools that were selected, 89 (97%) agreed to participate in the study.

While the unit of analysis was the school, most of the data were collected from teachers and students. From faculty rosters three groups of teachers were chosen using a table of random numbers. When the school was large enough, eight teachers were chosen for each group or 24 total. If a school had less than 24 teachers, then the number for each group was reduced proportionately. A total of 1,988 teachers were included in the sample. Using an original and two follow-up mailings, 1,697 (85%) teachers returned the measures in the first round. In the spring 1980 or the second round, only the 1,697 that had participated earlier were sent the same measure as the one they had completed in the fall 1980. A total of 41 teachers were no longer in the schools. Of the 1,658 that remained, 1,442 (87%) returned the instruments. This return rate means that the overall participation level was 73% of the initial sample.

In addition, ten students from each school or 890 were asked to complete a student attitude measure. Personnel within each school selected

the students. In secondary schools, language arts teachers made the selections. In elementary schools, a ~~third~~ fifth grade teacher selected the students. A total of 880 (99%) students participated in each round.

Data Collection Procedures

To reduce the probability of a response set across the different perceptual instruments and, therefore, to maintain methodological independence among the measures, the teachers were randomly divided into three groups. One-third responded to a set of measures not considered in the present paper, one-third to the scales of expectancy climate, and one-third to the criterion variables of job satisfaction, perceived adaptability, and perceived organizational effectiveness. Demographic data for education, experience, and gender were provided by each teacher respondent. Level and size of school were taken from existing records.

Since the school was the unit of analysis and not the individual, data were aggregated by averaging the teacher and student responses within each school. The result was scores on 10 variables for each school: one expectancy climate, five demographic and four dependent.

The data were collected through mail survey procedures. In most cases employees within the districts coordinated the data collection effort. They used the district mail system for sending and returning the measures to the research assistant in the district. In a few instances the federal mail system was used and the measures were returned directly to the principal investigator.

Instrumentation for the Effectiveness Criteria

Adaptation. Perceived adaptability of schools was assessed with a perceptual measure using five items from Mott's (1972) questionnaire. Miskel, Fevurly and Stewart (1979) modified the items for school settings.

Angle and Perry (1981) used a similar version to measure the adaptiveness of transportation organizations. Example items were: People in this school do a good job anticipating problems. What proportion of the people in your school readily accept and adjust to the changes? Each item had a five category extent scale which was scored from one to five. The possible range of scores was 5 (low adaptability) to 25 (high adaptability). As estimates of reliability, the alpha coefficients were .80 for the first sample set and .86 for the second.

Perceived goal achievement. Three items adapted from Mott's (1972) instrument by Miskel, Fevurly, and Stewart (1979) were employed to measure perceived goal achievement. This self report questionnaire asked the teachers to specify their perceotions of the quantity of products and services, the quality of products and services, and how efficient the resouces were used. Each item had a five category extent scale which was scored from one to five. The possible range of scores was 3 (low goal achievement) to 15 (high goal achievement). As estimates of reliability, the alpha coefficients were .77 for the first data set and .85 for the second.

Job satisfaction. A seven item measure was used to operationalize this concept. The scale indirectly probed various indicators of job satisfaction. Example items were: I often think of changing jobs; Most other educators are more satisfied with their jobs than I am. The teachers responded using a set of five categories from strongly disagree to strongly agree. The categories were assigned values of one to five and the possible range was from 7 (dissatified) to 35 (satisfied). As an estimate of reliability, the alpha coefficient was .81 (Miskel, Bloom, and McDonald, 1980). For the current samples, the alphas equaled .80 and .86 respectively. The measure has high face validity.

Student attitudes. The perceptions of the school by students were assessed with a measure composed of nine descriptive items. Example items were: Teachers in this school are friendly; Learning is enjoyable. The students responded using a set of five categories from strongly disagree to strongly agree. The categories were assigned values of one to five and the potential range was from 9 (negative) to 45 (positive). The alpha coefficents were .77 for the responses in round one and .79 in round two.

Instrumentation for Expectancy Climate

Using the outcomes identified as desirable from interview data collected in a pilot study (Miskel, Bloom and McDonald, 1980), instruments were developed to measure expectancy, valence and instrumentality. The expectancy measure was comprised of three items that asked about the relationship between effort expenditure and success. A sample item was, "High expenditure of effort equals high performance." The five categories of response ranged from never to almost always. The categories were assigned values of one to five. The alpha coefficient was .75. The item content was identical in the valence and instrumentality scales, but the items were presented as importance and probability statements, respectively. Eight items were used for each. Four of the items involved students (i.e., keeping student frustration at a low level) and four dealt with intrinsic aspects of the job (i.e., the chance to learn new things). The responses were scored from one to five. As estimates of reliability for the eight item measures, the alpha coefficients were .79 for valence and .83 for instrumentality, while the test-retest coefficients were .41 and .44 respectively (Miskel, Bloom, and McDonald, 1980). In the present samples, the alpha coefficients were .76 and .77 for valence, and .83 and .86 for instrumentality for the first and second response sets, respec-

tively. The force of motivation was calculated using the formula, FM = E($\sum$ IV). Therefore, the potential range of scores was from a low of 24 to a high of 3,000.

Demographic variables. To control for potential indigenous contextual effects, five demographic variables were included. Educational level of the teachers was scaled one, two or three for a bachelors, masters, or doctoral degree, respectively. The experience levels of the teachers was measured by the number of years the teacher had worked in the present position. Sex or the female-male composition of staff was determined by scaling female as a one and male as a two. The level of the school was scaled one to four for elementary, middle, junior high, and senior high, respectively. Size of the school was defined as the number of students enrolled in the school.

Results

The four hypotheses were tested using product-moment correlation coefficients. The findings from the descriptive statistics are discussed first, followed by the results of the formal tests of the four hypotheses, and finally a set of related findings will be presented and discussed.

Means and Standard Deviations

The means and standard deviations for the 10 variables from both data collection efforts are given in Table 1. The possible range for expectancy climate is 24-3,000. For both data sets the means (fall = 1,617.98 and spring = 1,537.24) are slightly above the conceptual mean of 1,512. In a similar study by Miskel, DeFrain, and Wilcox (1980), the means were slightly below the conceptual mean.

Table 1
Means and Standard Deviations (SD) for the Variables
in Both Data Collections

Variables	First Collection		Second Collection	
	Mean	SD	Mean	SD
Expectancy Climate				
1. Expectancy Climate	1,617.98	278.52	1,537.24	335.47
Demographic				
2. Education-Teachers	1.46	.23	1.46	.23
3. Years Experience-Teachers	6.58	2.87	6.58	2.87
4. Sex--Female = 1, Male = 2	1.34	.26	1.34	.26
5. Level of School	2.58	1.28	2.58	1.28
6. Size--Number of Students	606.18	409.96	606.18	409.96
Organizational Effectiveness				
7. Perceived Adaptibility	17.87	2.17	17.31	2.95
8. Perceived Goal Achievement	11.41	1.00	11.24	1.52
9. Teacher Job Satisfaction	23.96	2.78	23.44	3.77
10. Student Attitudes	34.23	2.45	32.72	5.63

Table 1 about here

Since the same individuals and schools participated in the first and second data collections, the items for the demographic factors are the same for both data sets. The schools can be described as follows: teachers primarily held bachelors and masters degrees (mean = 1.46) and averaged six to seven years experience (mean = 6.58 years); the teaching staffs were composed of more females than males (mean = 1.34); about an equal number of elementary and secondary schools comprised the sample (mean = 2.58); and the average size of school was about 606 students. The size of the schools ranged from a low of 145 to a high of 2,013 students.

Perceived adaptability of the schools with a possible range of 5-25 was described by teachers in the fall (mean = 17.87) and spring (mean = 17.31) semesters as being slightly above the conceptual mean of 15. Teachers view their schools as being relatively adaptive. Perceived goal achievement with a potential range of 3-15 and a conceptual mean of 9 had means of 11.41 and 11.24 in the fall and spring, respectively. Teachers view their schools as efficiently producing moderate to high quantities of fair to good quality outcomes. The two remaining variables are above the conceptual means. Teachers describe themselves as being neutral to satisfied with their jobs. With a possible range of 7-35 and a conceptual mean of 21, the means for teacher job satisfaction were 23.96 (fall) and 23.44 (spring). Student attitudes toward the school were positive or above the conceptual mean of 27 with greater variation in the responses for the data set collected in the spring semester than in the fall semester.

Tests of the Hypotheses

The correlation matrices for the 10 variables in both data sets are shown in Table 2. The upper portion of the table contains the coefficients for the data collected in the fall semester and the lower portion reports the coefficients for the data collected in the spring semester. For one-tailed tests of significance, the critical values of r with 87 degrees of freedom are .17 and .24 at the .05 and .01 probability levels, respectively.

Table 2 about here

Expectancy was hypothesized to be significantly correlated with four school effectiveness indicators representing the critical functions of social systems. Partial support was found for each hypothesis across both data collections, although the relationships tended to be stronger with the data collected later in the school year. The dependent variables for hypothesis one, perceived adaptability, and hypothesis two, perceived goal achievement, were highly correlated. Therefore, it is not surprising that expectancy climate was significantly correlated with perceived adaptability ($r = .29$ and .48 in the fall and spring, respectively) and perceived goal attainment ($r = .33$ and .55 in the fall and spring, respectively) of schools. Support was also found for hypothesis three. Expectancy climate correlated significantly with job satisfaction both in the fall data set ($r = .25$) and in the spring data set ($r = .30$). Similarly, hypothesis four was supported by correlation coefficients of .18 (fall) and .45 (spring) for expectancy climate and student attitudes toward school. These findings are supportive of those reported for educators by

Table 2

Correlation Matrices for the Variables in Data Collections One and Two

	1	2	3	4	5	6	7	8	9	10
1	-	07	03	-05	-18*	-01	29*	33*	25*	18*
2	10	-	21*	21*	28*	33*	-08	00	-01	-16
3	-08	21*	-	38*	35*	41*	-31*	-27*	-04	-13
4	00	21*	38*	-	74*	30*	-35*	-31*	-02	-49*
5	-23*	28*	35*	74*	-	51*	-36*	-33*	-09	-58*
6	-13	33*	41*	30*	51*	-	-24*	-05	00	-19*
7	48*	00	-24*	-16	-23*	-17*	-	79*	26*	29*
8	55*	12	-14	-09	-13	-03	81*	-	23*	31*
9	30*	-06	-04	01	05	02	60*	67*	-	10
10	45*	04	-04	-01	-01	04	44*	53*	48*	-

Note: The correlation matrix for first data collection comprises the top half of the table and the correlation matrix for the second data collection forms the bottom half. The names for variables 1-10 are given in Table 1. The coefficients have been multiplied by 100.

* Significant at or beyond the .05 level with 87 degrees of freedom.

Miskel, DeFrain, and Wilcox (1980) and in the general literature by Mitchell (1974; 1979).

Expectancy climate was significantly correlated to all four effectiveness criteria in both data sets. However, the magnitude of the correlation coefficients for the second data set were higher at .48, .55, .30, and .45 than the respective statistics in the fall at .29, .33, .25, and .18. In sum, substantial support was found for the general proposition that expectancy climate is a significant predictor of school effectiveness. Examinations of additional findings follow.

Related Findings

The 10 correlation coefficients describing the relationships among the five demographic variables are all significant and in the expected directions. For instance, more experienced teachers have attained higher levels of education; and elementary school staffs have a larger proportion of women than secondary school faculties; and secondary schools are larger than elementary schools.

Within the effectiveness criteria, significant positive coefficients characterize the relationships. Five of six in the fall and six of six in the spring are significant. The coefficients are also larger in second data set. Therefore, schools effective on one dimension tend to be high on the others.

The five demographic variables exhibited several significant relationships with the criterion variables, especially in the fall data set where 10 of the 20 correlation coefficients were significant. In the fall elementary schools were perceived as being more adaptable and having more positive student attitudes than secondary schools. Schools with a larger proportion of female teachers were perceived as having levels of goal

achievement than schools with higher percentages of male teachers. In the spring data set, the number of statistically significant relationships declined. Only three of the 20 correlation coefficients were significant. One of the five demographic variables--education level of teachers--did not correlate significantly for either data set. In the spring, five of six demographic variables were not significant correlates with any of the effectiveness criteria. The decreasing trend in the relationships between the demographic and outcome variables stand in contrast to the increasing trends in the correlations between the expectancy climate and effectiveness indicators.

Discussion and Implications

The findings from this study support the contention that expectancy climate based on cognitive approaches to motivation offers significant potential for better understanding the self-fulfilling prophecy in schools. Work is needed that specifies how expectancy climate influences the behavior of teachers and students. The concept of resource denial and supplements proposed by Wilkins (1976: 180) in conjunction with the components of expectancy, instrumentality, and valence provide relatively clear processes that that can be examined more fully with observational methods than with the survey procedures used in the present investigation. Further efficacy can be provided to the concept by placing it into a sequential model such as Cooper's (1979: 396) and Braun's (1976: 206). The resulting model should posit, in empirically testable form, the origins of educational student expectations and how expectation effects are communicated through direct feedback, grouping, and differential activities.

Furthermore, expectancy climate is an important concept in understanding schools as social organizations. Lincoln, Hanada and Olson

(1981: 96) assert that organizational structures tend to be compatible with the values and beliefs of its memebers. As a consequence an emerging view is that organizational phenomena are shaped by cultural values, beliefs, and expectations, as well as the institutional arrangements in which they are embedded. Therefore, the structure of schools may indeed be loosely coupled to formal criteria of organizational effectiveness. But school outcomes remain tied to the cultural and social orientations, such as the expectancy climate, that are created by the people involved in educational organizations.

Change In Relationships

The levels of association for the expectancy climate and the demographic factors with the school effectiveness criteria exhibited a tendency to change over the course of the year. The correlation coefficients between climate and the organizational effectiveness variables increased while those for the demographic and outcome variables decreased.

Do the relationships between expectancy climate and school outcomes exist early in the year and are just not recognized by the students and teachers? Or do the climates start anew each year and evolve into significant relationships by the end of the school year? Some stability in organizational relationships must be acknowledged. But, explanations of the different empirical results for the fall and spring data sets must accommodate existing and emerging patterns of interaction within the school. In most cases new members to the faculty and in all cases new students are added in the fall semester. These new actors not only must learn the expectations and appropriate educational outcomes, they will to some extent disrupt the continuity of patterns for the experienced educators and students. In addition, certain times of the year, such as the

opening of school and preparing for fall activities, hold high potential for crises, disruption of the system, and reduced goal attainment. As Burlingame (1979: 3-4) observed, a rhythm of seasons characterizes a school year.

Based on this background, the response to the two questions must include in its explanation of the change a combination of the linkages evolving and becoming known. Some stability exists among the variables from one school year to the next. Most of the educators and students return and renew relationships from the previous year. However, the new actors do not know the prevailing expectancies and experienced actors suffer from uncertainty associated with new actors and opening school activities. A result is that the associations among the climate and outcome variables are unclear. But by the spring semester the expectancies have evolved, been learned, and the relationships with the school effectiveness criteria are described with high degrees of association.

Conclusion

This investigation has integrated and tested a series of hypotheses based on expectancy climate as derived from organizational applications of expectancy motivation to work suggested by Vroom (1964), and a composite of school effectiveness indicators representing the critical functions posited by Parsons (1960). Several important relationships have been described that suggest directions for future research efforts. Additional theoretical and empirical work also is needed to build and test more elaborate formulations of expectancy effects and of organizational effectiveness of schools.

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